



<http://www.onlinelearningconference.com/enterprise/>

DARK BLUE?

You're developing e-learning in Authorware for a client who wants a dark blue background with white text.

Will white on dark blue be hard to read, especially for learners with vision issues?

Most readers responding to that query think so.

Gail Johnson (ggj987@earthlink.net) has been studying this.

Johnson, pursuing a master's degree in instructional technology at San Jose (Calif.) State University, is a former technical trainer and developer.

The scholarly consensus is that "light backgrounds are easier for reading content on a computer screen," says Johnson.

She means colors on computer monitors. "Projected materials are another issue," Johnson says. (See below for another view on that, however.)

COOL, BUT ...

We're used to dark text on light backgrounds, for one thing -- which means the reverse can be a sort of attention-getter.

"Dark colors look cool, or at least have a novelty factor," says Johnson, "but computer instruction should use light backgrounds."

Using a dark blue background means "you have to use white or yellow for the text to be readable at all," Johnson reasons.

"This limits your ability to use color to highlight important points or otherwise cue the learner."

Johnson suggests these sites:

<http://info.med.yale.edu/caim/manual/contents.html>

It carries material from "Web Style Guide: Basic Design Principles for Creating Web Sites" by Patrick Lynch and Sarah Horton (Yale University Press, 1999, \$16).

Lynch and Horton suggest white or muted background colors and black text for legibility.

Gray or white are the only backgrounds they recommend "if your highest priority is screen legibility," write Lynch and Horton.

http://www.lighthouse.org/color_contrast.htm

his site for people with vision deficiencies from Lighthouse Inc. of New York City recommends high contrast between text and background.

HARDEST TO SEE

Here are more points Johnson makes:

- o Red and blue are the hardest colors to see.
- o One researcher found that "strong colors like red and royal blue are stressful and are best used in limited amounts for graphics and artwork."
- o Light green, beige, grays and off-white are soothing and are the best choices for background colors.

If require light text and dark background, "use a larger, heavier font to compensate," Johnson advises.

"The dark background tends to close in on the lighter letters," she says – making smaller characters less legible.

On the other hand, Joe Francis (jfrancis@amfam.com) argues that white on dark blue "is one of the BEST color combinations for readability."

A printing-equipment maker advised Francis a few years ago to use high-contrast colors: white or yellow text with blue background.

35MM SLIDES

With big type, that is: titles should be 40 points or larger and body text 24 to 36 points, with five to seven lines maximum per screen.

The advice came at the time when presenters were making the transition from 35mm slides to early PowerPoint.

Francis, learning-technologies consultant with American Family Insurance in Madison, Wis., thinks the same goes for the Web.

"The human eye still perceives colors just like it always has," says Francis, "so many of these conventions still hold true."

Other respondents, however, all favor dark text on white backgrounds.

Cissy Lennon (cissy.lennon@faa.gov) notes a pamphlet entitled "Making your Web Site Senior Friendly" from the National Institute on Aging.

"Use dark type or graphics against a light background, or white lettering on a black or dark-colored background. Avoid patterned backgrounds," the Web version says.

<http://usability.gov/checklist.pdf>

The publication is a free PDF download, about 150K, at this site.

Lennon is an aircraft-certification manager with the Federal Aviation Administration in Oklahoma City.

WEB-DESIGN SITES

Neal E. Menkus (nemenku@meadwestvaco.com), IT manager for MeadWestvaco Corp.'s forestry division in Summerville, S.C., suggests these sites:

<http://mime1.marc.gatech.edu/mime/papers/colorTR.html>

"Using Color Effectively" is a 1990 article, last updated in 1997, from IBM Corp.'s software-usability unit in Atlanta.

http://www-3.ibm.com/ibm/easy/eou_ext.nsf/Publish/561

This page, Ease of Use Design, is also from IBM.

<http://ergo.human.cornell.edu/ahtutorials/interface.html>

Ergonomic Guidelines for User-Interface Design is a page from Cornell University in Ithaca, N.Y.

<http://java.sun.com/products/jlf/ed2/book/>

This site, Java Look and Feel Design Guidelines, is from Sun Microsystems Inc. of Palo Alto, Calif.

<http://developer.apple.com/techpubs/mac/HIGuidelines/HIGuidelines-2.html>

Macintosh Human Interface Guidelines is from Apple Computer Inc. of Cupertino, Calif.

<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnwui/html/uiguide.asp>

This page, User Interface Guidelines vs. Usability Testing, is from Microsoft Corp. of Redmond, Wash.

<http://www.useit.com/>

Jakob Nielsen, a Web-usability specialist with Nielsen Norman Group of Fremont, Calif., has articles and links at this site.

<http://usableweb.com/topics/000529-0-0.html>

<http://usableweb.com/topics/000445-0-0.html>

These sites from Keith Instone, a Toledo, Ohio, Web-usability specialist, have dozens of links to usability resources.

CONTRAST, NOT COLOR

Rene Hales (Rene@qx.net) points to these sites for color and accessibility questions:

<http://www.visibone.com/>

This site from VisiBone, a Sunrise, Fla., firm, has "nice info on colors and colorblind vision," says Hales.

<http://www.visibone.com/colorblind/>

This VisiBone page covers colorblindness, notes Hales, partner with Interactive Media Group LLC of Lexington, Ky.

<http://www.rnib.org.uk/>

Patrick Callaghan (patrick.callaghan@idi.no) suggests this site from the Royal National Institute for the Blind of London.

That group thinks "the best accessible data is presented in good contrasting colors," says Callaghan. "The choice of colors is not as important as the contrast."

Callaghan is information manager with Intosai Development Initiative, an Oslo nonprofit that helps train government workers in developing countries.

Web users often have sight impairments, says Callaghan, so Royal National Institute suggests Web developers let browser settings override the defined color schemes.

"Personally," says Callaghan, "I also think white text on a dark blue background should be avoided."